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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/918,312	07/30/2001	Jonathan Stern	2937.1000-008	9847
21005 7590 01/04/2008 HAMILTON, BROOK, SMITH & REYNOLDS, P.C. 530 VIRGINIA ROAD P.O. BOX 9133 CONCORD, MA 01742-9133				
EXAMINER SWEARINGEN, JEFFREY R				
ART UNIT		PAPER NUMBER		
2145				
MAIL DATE		DELIVERY MODE		
01/04/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

09/918,312

**Applicant(s)**

STERN ET AL.

**Examiner**

Jeffrey R. Swearingen

**Art Unit**

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**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-6,8-11,13-17 and 19-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-6,8-11,13-17 and 19-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/C)
- Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 10/25/07 have been fully considered but they are not persuasive.
2. Applicant conducted a telephonic interview on 10/25/07 with the Examiner to attempt to resolve issues concerning the 112 enablement rejection. Applicant was asked to submit those arguments in the response.
3. Applicant was unable to show adequate support within the specification for *using the deduced information in a manner omitting randomness*.
4. In the *Wands* analysis, the claims as a whole have been considered. The specific limitations were used as guiding posts to assist Applicant in the understanding of the enablement rejection.
5. Applicant admitted in the telephonic interview of 7/17/07 that the invention was well known in the art.
6. Applicant may have provided support for a web crawler in a prior application incorporated by reference; however, Applicant failed to provide support for a web crawler which obtains a working email address associated with a particular organization.
7. Applicant failed to disclose how the database of the claimed invention retrieved the "publicly available information".
8. Applicant never illustrated in the specification how the left side of the email address was constructed. Applicant gave suggestions, but never gave instructions on how to implement these suggestions. As one of ordinary skill is unaware of the steps to take to implement this critical portion of Applicant's invention, this further supports the enablement rejection.
9. Applicant failed to provide sufficient support for the determination of a generic email address format. Applicant failed to give examples in the specification to allow one of ordinary skill to implement this portion of the invention.
10. Applicant argues that because no claim is made concerning merging a database that this inquiry is irrelevant. However, Applicant's claims and specification, taken as a whole as Applicant pointed out in

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MPEP 2164.08, teach that this is a critical feature of Applicant's claimed invention and must be considered in order to enable the invention.

11. Applicant failed to provide sufficient support for a device detecting a name on a web page or press release.

12. Applicant failed to provide sufficient support for affiliating a specific email address with an organization.

13. Applicant failed to provide sufficient support for merging two records of Applicant's database as claimed in claim 11.

14. Applicant failed to provide sufficient support for using statistical rarity of an individual's name or title in determining whether to combine two records of the database. Applicant merely states that this can be performed; Applicant never provides steps or suggestions on how to implement this claimed feature.

15. Applicant failed to provide sufficient support for identifying a web page as containing information of interest.

16. Applicant's arguments failed to overcome the rejection under 35 U.S.C. 101. The invention is composed of subject matter which violates federal statute; therefore the invention is non-statutory.

17. Applicant argued Cranor failed to disclose the invention. Cranor's statement of email harvesting and sending massive amounts of email with forged headers does make obvious Applicant's invention of obtaining a working e-mail address of an organization, deducing a format of email addresses for the organization, using the format to construct "potential email addresses", and "testing" said "potential email addresses."

18. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Miller discloses ways to locate email

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addresses, and is a natural and obvious extension of Henrick since Henrick is involved with generation of email messages.

19. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

20. Applicant misinterprets the Knight and Feridun references. Knight crawls networks for information and classifies the information. The aggregation of Feridun is an obvious extension of Knight as it reduces computation time and data redundancy.

***Claim Rejections - 35 USC § 112***

21. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

22. Claims 1, 6, 15 and 22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant amended the claims to state the deduced information is used "in a manner omitting randomness". Applicant failed to provide support for this limitation within the specification.

23. Claims 1, 3-6, 8-11, 13-17, and 19-23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

24. The test of enablement is found in MPEP 2164.01. The claimed invention must be enabled so that any person skilled in the art can make and use the invention without undue experimentation. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988). *In re Wands* provided factors to be considered when determining whether there is sufficient evidence to support a determination that a

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disclosure does not satisfy the enablement requirement and whether any necessary experimentation is "undue." These factors include, but are not limited to:

- a. The breadth of the claims;
- b. The nature of the invention;
- c. The state of the prior art;
- d. The level of one of ordinary skill;
- e. The level of predictability in the art;
- f. The amount of direction provided by the inventor;
- g. The existence of working examples; and
- h. The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

25. The *Wands* factors are applied to the disclosure.

- a. The breadth of the claims:  
  
Applicant's claims are toward a specific implementation of an email harvesting system which constructs "potential email addresses" from information harvested from web pages and "tests" the email addresses.  
  
The claims are read in light of the specification.
- b. The nature of the invention:  
  
Applicant's invention is a web crawler that extracts addresses of persons, creates possible email addresses, and "tests" the addresses by sending unsolicited email to the individuals.
- c. The state of the prior art:  
  
Applicant's representative stated on 7/1/72007 that the invention is "well known" to the art and is "simple technology." A search of the prior art returned no information on how email addresses would be fabricated based on the identification of a random email

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address format from a web page, or the apparent merging of this information with a public database of harvested web information. The use of crawlers to detect persons related to a specific organization is not known in the prior art. The use of crawlers to detect a predefined email format related to a specific organization is not known in the prior art. The use of a generic email address being extracted and reformed as possible email addresses affiliated with a specific person following the same generic format is not known in the prior art. The use of "testing" email addresses for validity by sending an unsolicited email message is known in the art as "spamming."

d. The level of one of ordinary skill;

One of ordinary skill in the art is presumed to possess a Bachelor of Science degree in computer science, electrical engineering, or computer engineering. One of ordinary skill in the art is presumed to have 3-5 years of industry experience. One of ordinary skill in the art is unaware of how to implement a device which extracts personal information from websites, identifies persons with an organization based upon the web page, merges said information with a database, detects specific organization "predefined email formats", and creates and tests possible email addresses for persons affiliated with the organization in the database using the predefined email formats based on their level of expertise.

e. The level of predictability in the art;

Networking art is predictable. Packets can be simulated and modeled without worry of undue environmental factors altering the result of a test.

f. The amount of direction provided by the inventor;

Applicant stated "a manner omitting randomness" was used. There is no support for "a manner omitting randomness in the specification. The MPEP does provide for negative claim limitations, but "a manner omitting randomness" falls into the area that would

require further explanation to one of ordinary skill in the art in order to enable the invention.

Applicant claims "obtain[ing] a working e-mail address to the respective organization, the working e-mail address not being the e-mail address of a subject person." Applicant was asked for support for this feature in a telephonic interview conducted on 7/17/2007.

Applicant's representative responded that the crawler goes out to websites and looks at the website and sees the email address in the website, subsequently detecting the format. The crawler also could read a press release and determine names of persons working for that corporation. Applicant's representative stated that it was "known in the industry" by saying the word "crawler", and the crawler detects email for the website based on "specific instructions" to perform a particular task. Applicant was unable to give support for the technical background of these features in the specification, beyond "it is programmed" to do these features and it is "known in the industry". The Office is unaware of any teachings in the prior art that present these features that are "known in the industry", based upon the use of the word "crawler."

Applicant was asked in the interview of 7/17/2007 how the database has publicly available information as described in the claim, and to provide support in the specification. Applicant referred the examiner to "the internet" as support. Applicant failed to describe how the database has publicly available information as described in the claim.

Applicant was asked if the "crawler" harvested information from websites to populate the database. Applicant stated, "it is programmed to look for these names." No evidence exists within the specification showing how this programming can be performed by one of ordinary skill in the art. One of ordinary skill in the art is unaware of how to program a "crawler" to look for specific names. One of ordinary skill in the art recognizes that some sort of keyword index, universal standard identifier, or other construct must be present to identify specific names and relate them to an organization. Applicant was asked if the



"crawler" had any of these functions, and where support was located in the specification for them. Applicant replied on 7/17/2007, it is "what the crawler is programmed to do."

One of ordinary skill in the art cannot build a "crawler" from Applicant's specification to implement the invention based on Applicant's assertion that the invention's function is "what the crawler is programmed to do."

Applicant claimed constructing potential email addresses. Applicant was asked to explain how the potential email addresses are constructed. Applicant stated the invention "looks at the format and constructs based upon that format." Applicant claims this is by using a predefined common email address format. Applicant was asked to provide examples. Applicant stated .com and .gov were examples. Applicant's invention is based on constructing the potential email addresses on the left side of the email address, where the left side is smith in the example, smith@abc.com. Applicant stated no predefined address format is present in the invention before the use of the crawler. If no predefined address format is present in the invention before the use of the crawler, then any address formats found subsequently are not predefined. One of ordinary skill in the art is unaware how to construct the left side of an email address without an example email address format to follow preprogrammed into the invention. One of ordinary skill in the art is unaware how an email address format is detected by the invention to determine a generic email address. One of ordinary skill in the art is unaware how to merge a database with specific personal information into a format mirroring an email address format that could be used for constructing and testing email addresses. One of ordinary skill in the art is unaware how a device can detect a name on a web page or "press release" (as Applicant provided as an example) and relate it to a specific organization. One of ordinary skill in the art is unaware how to affiliate a specific email address with an organization by "detecting" it with a web agent or crawler, or how to merge that information with a database to construct a "potential email address format." Applicant

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was asked for information on how these steps were accomplished on 7/17/2007.

Applicant stated, "its what the crawler does."

Applicant claimed merging two data records in claim 11. Applicant was asked how the integrator can merge two records of data if the two records were different. Applicant stated all of the information was kept, and the invention does not pick between two records to merge data records. One of ordinary skill in the art is unaware how to merge data records as claimed in claim 11 without selecting data between two records to combine them.

Applicant claims considering statistical rarity of title and person. In a telephonic interview of 7/17/2007, Applicant's representative stated the "technology is pretty simple" and "the inventor said this was well known." Applicant pointed to page 24, line 23 – page 25, line 3 of the specification, but this failed to teach how statistical rarity is used to identify a title or person. The Office is unaware of any prior art in the field teaching the use of statistical rarity of title and person to determine if two data records were unique in order to construct email addresses.

Applicant claims determining whether a page contains "information of interest" in claim 17. In a telephonic interview on 7/17/2007, Applicant was asked if this was accomplished with keywords or identifiers. Applicant's representative stated this was "what the crawler is programmed to do." Applicant was asked for any support in the specification detailing how a web page is identified as containing "information of interest" in a manner allowing one of ordinary skill to recreate the invention. Applicant could not provide adequate support.

- g. The existence of working examples;  
Applicant provided no working examples of the invention or other similar inventions.

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- h. The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

One of ordinary skill in the art, faced with the limited information of how to perform identification of a person with an organization by a web agent or crawler, identification of an email address with an organization by a web agent or crawler, detection of an email format from an email address, and construction of an email address by using a database merged with the email format, based upon Applicant's limited specification and the statements given by Applicant such as "its simple technology", "the inventor said its well known in the art", and "its what the crawler is programmed to do", would be faced with the burden of undue experimentation in recreating Applicant's claimed invention.

***Claim Rejections - 35 USC § 101***

26. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

27. Claims 1, 3-6, 8-11, 13-17, and 19-23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

28. Claims 1-11, 13-17, and 19-23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 1-11, 13-17, and 19-23 are directed to an invention that sends unsolicited email to addresses it extrapolates from not readily available personal information that is extracted from websites via software agents. This device is non-statutory subject matter because it is in violation of the CAN-SPAM Act of 2003 (Controlling the Assault of Non-Solicited Pornography and Marketing Act) as enacted by Congress. Applicant is advised that the Federal Trade Commission is authorized to enforce the CAN-SPAM act, as is the Department of Justice. According to the requirements given by the FTC, CAN-SPAM covers "email whose primary purpose is advertising or promoting a commercial product or service, including content on a Web site". Claims 1-11, 13-17, and 19-23 refer to business e-mail addresses and testing said business e-mail addresses. This device can be embodied as

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a device to search for information on individuals and send them non-solicited pornography and marketing electronic messages. The FTC further states that additional fines are provided for commercial emailers who "harvest" email addresses from Web sites or Web services that have published a notice prohibiting the transfer of email addresses for the purpose of sending email" and "generate email addresses using a 'dictionary attack' – combining names, letters, or numbers into multiple permutations". This is analogous to the claim language "automatically generating e-mail address of a subject person named in the database but for whom e-mail address information is missing from the database", "obtaining a working e-mail address to the respective organization the working e-mail address not being the e-mail address of the subject person; deducing from the working e-mail address, format of e-mail addresses to the respective organization; using the deduced information, constructing potential e-mail addresses for the subject person; and verifying each constructed potential e-mail address by testing each, such that at least one verified constructed potential e-mail address provides a business e-mail address of the subject person", for example.

### ***Claim Rejections - 35 USC § 103***

29. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

30. Claims 1, 3-6, 8-11, 13-17, and 19-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cranor et al. ("Spam!". Communications of the ACM, August 1998. Volume 4, Issue 8. pp. 74-83).

31. In regard to claims 1, 3-6, 8-11, 13-17, and 19-23, Cranor disclosed that spamming was performed by harvesting information such as email addresses from the World Wide Web. Cranor failed to disclose a method of doing this, but disclosed that it was taking place prior to the publication of the article in 1998. Therefore methods of creating spam by harvesting information from the World Wide Web were in existence. It would have been obvious to one of ordinary skill in the art to create the invention as

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described in claims 1-23 since warnings and methods were in existence to prevent the effects of the claimed invention in 1998.

32. Claims 1, 3 and 6, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henrick et al. (U.S. Patent No. 6,377,936) in view of Miller (Online Search Secrets, 173-179) in view of Biliris et al. (U.S. Pub. No. 2001/0009017, hereafter referred to as Biliris).

33. Regarding claim 1, Henrick discloses providing a database storing information regarding people, the database including for each person at least name of the person and the name of respective employer for which the person is currently employed [Henrick discloses a customer mailing list. See Henrick, column 3, lines 53-54.]; and using digital processor means couple to the database, automatically constructing and verifying potential e-mail address of a subject person named in the database, the e-mail address being with respect to a respective organization named in the database for the subject person [Henrick discloses generating an e-mail message. Constructing and verifying an e-mail address is part of generating an e-mail message. See Henrick, column 3, line 54]. Henrick fails to disclose what to do if email address information is missing from the database. However, Miller discloses well known techniques for finding email address information on the web. Therefore it would be obvious to combine the tactics of Miller with the Henrick invention in order to allow more persons to be solicited by email, thus increasing revenue for the solicitor, as taught in the Henrick patent [Henrick, column 1, lines 10-36 referring to prior art and internet marketing].

34. Henrick in view of Miller fails to disclose *obtaining a working e-mail address to the respective organization, the working e-mail address not being the e-mail address of the subject person; deducing from the working e-mail address, format of e-mail addresses to the respective organization; using the deduced information, constructing potential e-mail addresses for the subject person; and verifying each constructed potential e-mail address by testing each, such that at least one verified constructed potential e-mail address provides a business e-mail address of the subject person.*

35. However, Biliris discloses receiving a message from a sender system with a declarative address [obtaining a working e-mail address to the respective organization, the working e-mail address not being

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*the e-mail address of the subject person]* and resolving the declarative address into messaging addresses by use of a database query on stored information [*deducing from the working e-mail address, format of e-mail addresses to the respective organization and using the deduced information, constructing potential e-mail addresses for the subject person*]. Biliris then transmits the messaging address(es) to the messaging server, which transmits the message to the addressed recipients [*verifying each constructed potential e-mail address by testing each, such that at least one verified constructed potential e-mail address provides a business e-mail address of the subject person*]. [See Biliris, page 1, paragraphs 0009-0011. See Biliris, page 2, paragraph 0024.]

36. It would have been obvious to one of ordinary skill in the networking art at the time of the invention to combine the teachings of Henrick in view of Miller and Biliris, for the purpose of sending messages to recipients without an explicitly enumerated mailing list. [See Biliris, page 1, paragraph 0009.] Henrick gives motivation for the combination of teachings by stating that users who might be interested in receiving information are reluctant to provide information to businesses. [See Henrick, column 1, lines 23-27.]

37. Regarding claim 6, the limitations of this claim are substantially the same as those in claim 1. Therefore the same rationale for rejecting claim 1 is used to reject claim 6.

38. Regarding claim 3, Henrick in view of Miller in view of Biliris are applied as in claim 2. Biliris further discloses using logical combinations of filtered directory information and mailing lists to specify a list of e-mail recipients [*using predefined common email address formats*, see Biliris, page 3, paragraph 0033.]

39. Regarding claim 8, the limitations of this claim are substantially the same as those in claim 3. Therefore the same rationale for rejecting claim 3 is used to reject claim 8.

40. Claims 4 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Henrick in view of Miller in view of Biliris in further view of Mills (Australian Patent Abstract No. AU-A-53031/98).

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41. Regarding claim 4, Henrick in view of Miller in view of Biliris is applied as in claim 1. Henrick in view of Miller in view of Biliris fails to disclose *using crawler means, automatically extracting information regarding people and / or organizations from sites of a global computer network and storing the extracted information in the database, such that the database is formed by automated means.*

42. However, Mills discloses *using crawler means, automatically extracting information regarding people and / or organizations from sites of a global computer network and storing the extracted information in the database, such that the database is formed by automated means.* [See Mills, page 8, lines 38-49].

43. It would have been obvious to one of ordinary skill in the networking art at the time of the invention to combine the teachings of Mills with the teachings of Henrick in view of Miller in view of Biliris for the purpose of improving the method of building a searchable database of contact information. [See Mills, page 6, lines 25-30]. Henrick provides motivation for the combination by stating that data mining is used to obtain information about network users. [See Henrick, column 5, lines 19-23] By this rationale claim 4 is rejected.

44. Regarding claim 9, the limitations of this claim are substantially the same as those in claim 4. Therefore the same rationale for rejecting claim 4 is used to reject claim 9.

45. Claims 5 and 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Henrick in view of Miller in view of Biliris in view of Mills as applied to claim 4 and in view of Barroux (U.S. Patent No. 5,923,850).

46. Regarding claim 5, Henrick in view of Miller in view of Biliris in view of Mills are applied as in claim 4. Henrick in view of Miller in view of Biliris in view of Mills fail to disclose *employing a multiplicity of crawlers under control of a distributor.*

47. However, Barroux discloses *employing a multiplicity of crawlers under control of a distributor.* [Barroux discloses an administrative database and a task scheduler that schedules discovery tasks to be executed on the network. Examiner considers discovery tasks to include crawlers. Examiner considers

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task scheduler to be a distributor. See Barroux, column 3, lines 64-67. See Barroux, column 3, lines 41-52. See Barroux, column 4, lines 54-60.]

48. It would have been obvious to one of ordinary skill in the networking art at the time of the invention to combine the teachings of Barroux with the teachings of Henrick in view of Miller in view of Biliris in view of Mills for the purpose of tracking changes over time in information collected by network agents. [See Barroux, column 1, lines 50-56]. Henrick provides motivation for the combination by stating that data mining is used to obtain information about network users. [See Henrick, column 5, lines 19-23] Mills further provides motivation for the combination by stating that indexes [databases] are often created by use of web crawlers and that many relevant pages are missed. [See Mills, page 2, line 35 – page 3, line 19].

49. Regarding claim 10, the limitations of this claim are substantially the same as those in claim 5. Therefore the same rationale for rejecting claim 5 is used to reject claim 10.

50. Claims 11, 13, 17, 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knight (U.S. Patent No. 6,493,703) in view of Feridun et al. (U.S. Patent No. 6,336,139).

51. Regarding claim 11, Knight discloses a computer automated system for mining from a global computer network information on people and organizations comprising: a plurality of automated crawlers for traversing sites of a global computer network and retrieving pages that contain information of interest; a distributor coupled to the crawlers for controlling crawler processing; an extractor responsive to the crawler retrieved pages and extracting information about people and organizations therefrom; the extracted information being stored in a database; an integrator coupled to the database for resolving duplicate information and combining related information in the database; and a post-processor coupled to the database for analyzing contents of the database and generating missing information therefrom. [Knight discloses searching a bulletin board system with software robots (plurality of automatic crawlers, column 5, lines 45-49), extracting information (column 5, lines 6-10), storing the information in a database (column 6, lines 40-59), and creates classifications of messages in logical groupings based on filters



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(combining related information and analyzing contents of the database and generating missing information, column 10, lines 1-53). Knight fails to disclose combining database records of information.

52. However, Feridun discloses aggregating data collected by a network agent [combining database records collected by a crawler, see Feridun, column 12, lines 37-40].

53. It would have been obvious to one of ordinary skill in the networking art at the time of the invention to combine the teachings of Knight and Feridun for the purpose of detecting status changes in monitored objects (a person, see Feridun, column 2, lines 1-3.). Knight gives motivation for the combination by stating that not distinguishing between subject areas (changes in a person) results in frustration to the user. [See Knight, column 9, lines 45-54.]

54. Regarding claim 17, the limitations of this claim are substantially the same as those of claim 11. Therefore the rationale used to reject claim 11 is used to reject claim 17.

55. Regarding claim 13, Knight and Feridun are applied as in claim 11. Knight further discloses a prioritization scheme utilizing frequency of occurrence of a subject category (statistical rarity of title and person's name, see Knight, column 6, line 60 – column 7, line 6).

56. Regarding claim 19, the limitations of this claim are substantially the same as those in claim 11. Feridun deals with aggregating data between duplicate records. The name and organization name and title all fall into the general category of data in records.

57. Regarding claim 20, the limitations of this claim are substantially the same as those in claim 13. Therefore the rationale used to reject claim 13 is used to reject claim 20.

58. Claims 14 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knight in view of Henrick.

59. Regarding claim 14, Knight is applied as in claim 11. Knight fails to disclose generating an e-mail address.

60. However, Henrick discloses generating an e-mail message. Examiner considers generating an e-mail address to be part of generating an e-mail message. See Henrick, column 3, line 54.

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61. It would be obvious to one of ordinary skill in the networking art at the time of the invention to combine the teachings of Knight and Henrick for the purpose of sending e-mail by use of data mining. [See Henrick, column 1, lines 39-55.] Knight gives motivation for the combination by stating that information is gathered that is of interest to users, and that the gathered information can be transmitted to a user in the form of an electronic message. [See Knight, column 5, lines 45-67.]

62. Regarding claim 21, the limitations of this claim are substantially the same as those in claim 14. Therefore the rationale for rejecting claim 14 is used to reject claim 21.

63. Claims 15-16, 22-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Knight, Henrick in view of Biliris.

64. Regarding claim 15, Knight and Henrick are applied as in claim 14. Knight and Henrick fail to disclose *obtaining a working e-mail address to the respective organization, the working e-mail address not being the e-mail address of the subject person; deducing from the working e-mail address, format of e-mail addresses to the respective organization; using the deduced information, constructing potential e-mail addresses for the subject person; and verifying each constructed potential e-mail address by testing each, such that at least one verified constructed potential e-mail address provides a business e-mail address of the subject person.*

65. However, Biliris discloses receiving a message from a sender system with a declarative address [*obtaining a working e-mail address to the respective organization, the working e-mail address not being the e-mail address of the subject person*] and resolving the declarative address into messaging addresses by use of a database query on stored information [*deducing from the working e-mail address, format of e-mail addresses to the respective organization and using the deduced information, constructing potential e-mail addresses for the subject person*]. Biliris then transmits the messaging address(es) to the messaging server, which transmits the message to the addressed recipients [*verifying each constructed potential e-mail address by testing each, such that at least one verified constructed potential e-mail address provides a business e-mail address of the subject person*]. [See Biliris, page 1, paragraphs 0009-0011. See Biliris, page 2, paragraph 0024.]

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66. It would have been obvious to one of ordinary skill in the networking art at the time of the invention to combine the teachings of Knight, Henrick and Biliris, for the purpose of sending messages to recipients without an explicitly enumerated mailing list. [See Biliris, page 1, paragraph 0009.] Henrick gives motivation for the combination of teachings by stating that users who might be interested in receiving information are reluctant to provide information to businesses. [See Henrick, column 1, lines 23-27.]

67. Regarding claim 16, Knight, Henrick in view of Miller and Biliris are applied as in claim 2. Biliris further discloses using logical combinations of filtered directory information and mailing lists to specify a list of e-mail recipients [*using predefined common email address formats*, see Biliris, page 3, paragraph 0033.]

68. Regarding claim 22, the limitations of this claim are substantially the same as the limitations of claim 15. Therefore the rationale used to reject claim 15 is used to reject claim 22.

69. Regarding claim 23, the limitations of this claim are substantially the same as the limitations of claim 16. Therefore the rationale used to reject claim 16 is used to reject claim 23.

#### ***Conclusion***

70. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. Swearingen whose telephone number is (571)272-3921. The examiner can normally be reached on M-F 8:30-5:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jason Cardone can be reached on 571-272-3933. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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